

microwave photonic systems

MP-5000TX

12 GHz RF/Fiber Optic Transmitter



Designed for antenna remoting and broadband RF transmission applications using singlemode fiber optic cable

The MP-5000TX is a RF/fiber optic Transmitter designed for antenna remoting and broadband RF transmission applications using singlemode fiber optic cable.

The transmitter uses a high efficiency Distributed Feedback (DFB) laser diode with an operating wavelength selected from the ITU CWDM or DWDM grid. The transmitter provides low noise and high dynamic range performance over a wide operating temperature range. Temperature stability is controlled with an integrated thermo-electric cooler (TEC).

The transmitter provides status monitoring through the use of an onboard processor that communicates with a host computer over an RS-232 I/O interface. The I/O parameters include laser bias current, temperature and alarm status. When the MP-5000TX RF/Fiber Optic Transmitter is linked with the MP-5000RX 12 GHz RF/Fiber Optic Receiver, the combination provides an excellent choice for your ultrawideband RF to Fiber Optic conversion applications. The MP-5000TX can also be paired with the MP-2320RX to provide a high performance 3 GHz link with 0.0 dB link gain.

Information: Call us toll-free at 888-868-8967 or email info@b2bphotonics.com

Applications

- Ultra-Wideband RF Transmission
- Antenna Remoting
- Radar Delay Lines
- C & X SATCOM
- RADAR, EW & ECM

Features

- Ultra-Wide Bandwidth, 1.0 MHz to 12 GHz
- High Dynamic Range
- Low Noise DFB Laser
- Uni-Polar Power Supply
- Status Monitoring: RS-232 (opt)
- ITU CDWM & DWDM Compatible

Microwave Photonic Systems, Inc.

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100204 CAGE 1A9M1

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Specifications

Optical Operating Wavelength: ITU CWDM or DWDM Grid Optical Output Level (min): +3.0 dBm E/O Diff. Eff. (min): 0.1 W/A Line Width (3 dB): 36 dB @ full specs Side Mode Supression (typ): 0.06 W/A	General Power Supply: +8.0 to +24 Vdc Optical Input Receptacle: Pigtail, FC/APC, SC/APC or AVIM APC RF Output Connector: SMA(f), 50 ohm DC Connector: DB-9 Operating Temperature: -40° C to +85° C Storage Temperature: -55° C to +85° C Local Alarm: LED - Optical Power Failure Optical Power Monitor: 1 V/m W \pm 10% Remote Alarms: Open Collector and RS-232 Interface Standard Conformity: CE Dimensions: 5(l)" x 3(w)" x 1(h)"
RF Channel Modulation Bandwidth - Model A: 1 MHz to 12 GHz - Model B: 100 MHz to 3 GHz Flatness (max): \pm 2.0 dB VSWR (max): 2.0:1 1 dB Comp. Level (min): 18.0 dBm* Input IP-3 (min): 30.0 dBm* Input Damage Level: 20.0 dBm* RF Link Gain (typ) - Model A: -30.0 dB @ 1.0 dB Optical Loss* @ 12 GHz - Model B: 0.0 dB @ 1.0 dB Optical Loss** @ 3 GHz Noise Figure (max) - Model A: 45.0 dB @ 1.0 dB Optical Loss* @ 12 GHz - Model B: 30.0 dB @ 1.0 dB Optical Loss** @ 3 GHz	* Note: Overall link performance as measured from RF Input/Output when linked with the MP-5000RX. ** Note: Overall link performance as measured from RF Input/Output when linked with the MP-2320RX.

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